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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,402

12/06/2005

Frank Wegner Donnelly

5107-15

4130

22442 7590 03/14/2007
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EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

2834

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/533,402	Applicant(s) DONNELLY, FRANK WEGNER	
	Examiner Pedro J. Cuevas	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,129,328 A to Donnelly in view of U.S. Patent No. 6,198,238 B1 to Edelson.

Donnelly disclose the construction of a gas turbine locomotive fueled by compressed natural gas, comprising:

- a turbine prime mover (15);
- an induction alternator (16);
- a naturally commutated cycloconverter (column 3, lines 32-39) connected to said induction alternator; and
- a control circuit (39) to control said cycloconverter.

However, it fails to disclose an excitation system for said induction alternator comprising a plurality of static capacitors and switches and a control circuit to control said excitation system.

Edelson teach the construction of a high phase order cycloconverting generator and drive means comprising:

- an excitation system (column 12, lines 33-41 and lines 50-62) for said induction alternator comprising a plurality of static capacitors (column 2, lines 32-35) and switches (column 1, lines 57-67 and column 2, lines 21-31);

a control circuit (SCR) to control said excitation system; and

a plurality of silicon controlled rectifiers (29)

for the purpose of manipulating the output of said generator, the system producing electrical output of the desired voltage, current, frequency, and phase.

It would have been obvious to one skilled in the art at the time the invention was made to use the excitation system and control circuit disclosed by Edelson on the gas turbine locomotive disclosed by Donnelly for the purpose of manipulating the output of said generator, the system producing electrical output of the desired voltage, current, frequency, and phase.

3. With regards to claim 2-3, 11, Edelson discloses a plurality of parallel windings (Figure 12) comprising three parallel windings (Figure 11), thereby allowing elimination of a transformer.

4. With regards to claims 4 and 10, Donnelly discloses an independent alternating current power source (35) in circuit with said cycloconverter to permit starting of the prime mover using the induction alternator.

5. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,129,328 A to Donnelly in view of U.S. Patent No. 6,198,238 B1 to Edelson as applied to claims 1-7 above, and further in view of U.S. Patent No. 6,308,639 B1 to Donnelly et al.

Donnelly in view of Edelson disclose the construction of a gas turbine locomotive as disclosed above.

However, it fails to disclose said controller being a programmable logic controller.

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Donnelly et al. teach the construction of a hybrid battery/gas turbine locomotive comprising a controller being a programmable logic controller (30) for the purpose of monitoring the state of the battery charge and the ambient temperature.

It would have been obvious to one skilled in the art at the time the invention was made to use the programmable logic controller disclosed by Donnelly et al. on the gas turbine locomotive disclosed by Donnelly in view of Edelson for the purpose of monitoring the state of the battery charge and the ambient temperature.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (571) 272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00.

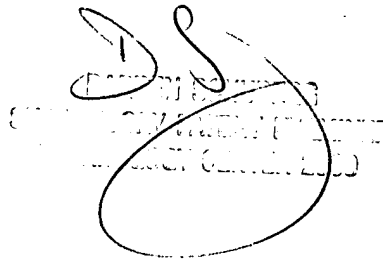
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pedro J. Cuevas
March 6, 2007



Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :2/27/06, 3/22/06, 6/26/06, 7/17/06, 1/15/07 and 1/26/07.